

INTERNATIONAL SEARCH REPORT

International Application No
PCT/IB 03/05970

A. CLASSIFICATION OF SUBJECT MATTER
IPC 7 G11B7/125 G11B7/135

According to international Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
IPC 7 G11B

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, PAJ, WPI Data, INSPEC

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	EP 0 892 396 A (SHARP KK) 20 January 1999 (1999-01-20) abstract figures 1,13,14; example 8	1,6-11, 13-15
Y		2-4,12, 16
Y	WO 01/24174 A (KONINKL PHILIPS ELECTRONICS NV) 5 April 2001 (2001-04-05) page 11, line 1 - page 14, line 5; figure 4	2,4
Y	PATENT ABSTRACTS OF JAPAN vol. 1999, no. 04, 30 April 1999 (1999-04-30) & JP 11 003528 A (MINEBEA CO LTD), 6 January 1999 (1999-01-06) abstract	3
	----- -/--	

☒ Further documents are listed in the continuation of box C.

☒ Patent family members are listed in annex.

* Special categories of cited documents :

- *A* document defining the general state of the art which is not considered to be of particular relevance
- *E* earlier document but published on or after the international filing date
- *L* document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
- *O* document referring to an oral disclosure, use, exhibition or other means
- *P* document published prior to the international filing date but later than the priority date claimed

- *T* later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
- *X* document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
- *Y* document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.
- *Z* document member of the same patent family

Date of the actual completion of the international search

28 May 2004

Date of mailing of the international search report

09/06/2004

Name and mailing address of the ISA

European Patent Office, P.B. 5818 Patentlaan 2
NL - 2280 HV Rijswijk
Tel. (+31-70) 340-2040, Tx. 31 651 epo nl,
Fax: (+31-70) 340-3016

Authorized officer

Annibal, P

INTERNATIONAL SEARCH REPORT

International Application No
PCT/IB 03/05970

C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT		
Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	US 6 304 312 B1 (HOTAKA HIROKI ET AL) 16 October 2001 (2001-10-16) abstract column 1, line 15 - line 52 column 3, line 14 - line 30	12
Y	US 4 657 354 A (KOBAYASHI HIROSHI) 14 April 1987 (1987-04-14) the whole document	16
X	EP 0 453 576 A (SONY CORP) 30 October 1991 (1991-10-30) abstract column 5, line 6 - line 26; figure 1	1-6, 14, 15

Patent document cited in search report		Publication date	Patent family member(s)	Publication date
EP 0892396	A	20-01-1999	JP 11039703 A EP 0892396 A2	12-02-1999 20-01-1999
WO 0124174	A	05-04-2001	WO 0124174 A1 EP 1135773 A1 HU 0104888 A2 JP 2003510749 T TW 451072 B US 6567365 B1	05-04-2001 26-09-2001 28-03-2002 18-03-2003 21-08-2001 20-05-2003
JP 11003528	A	06-01-1999	NONE	
US 6304312	B1	16-10-2001	JP 10074333 A WO 9727583 A1 US 2001030732 A1	17-03-1998 31-07-1997 18-10-2001
US 4657354	A	14-04-1987	JP 2036744 C JP 7064033 B JP 60056544 A	28-03-1996 12-07-1995 02-04-1985
EP 0453576	A	30-10-1991	JP 3157843 A DE 69026601 D1 DE 69026601 T2 EP 0453576 A1 US 5394381 A WO 9107749 A1	05-07-1991 23-05-1996 10-10-1996 30-10-1991 28-02-1995 30-05-1991